

**WHAT IS CLAIMED IS:**

1. A cooking operation in a microwave oven, comprising:  
  
providing a microwave oven having a sensor for detecting humidity levels within the microwave oven;  
  
performing a first heating operation at a maximum power level of the microwave oven for a first time period;  
  
determining whether the sensor detects a predetermined level of the condition, wherein the first time period is terminated when the predetermined level is detected by the sensor;  
  
performing a second heating operation at the maximum power level for a second period of time, wherein the second period of time is determined by multiplying the first time period by a first predetermined constant; and  
  
performing a third heating operation at a power level lower than the maximum power level for a third period of time, wherein the third period of time is determined by multiplying the sum of the first and second time periods by a second predetermined constant.
2. The method as claimed in claim 1, wherein the sensor outputs electrical signals indicative of the level of humidity within the chamber.
3. The method as claimed in claim 1, wherein the predetermined level of the condition includes a maximum variation in detected conditions from the sensor.
4. The method as claimed in claim 1, further comprising determining the first predetermined constant in accordance with a type of food to be heated within the microwave oven.

5. The method as claimed in claim 1, further comprising determining the first predetermined constant in accordance with a type of cooking operation being performed.
6. The method as claimed in claim 5, wherein the type of cooking operation being performed is a simmer cooking operation.
7. The method as claimed in claim 5, wherein the type of cooking operation being performed is a thawing operation.
8. The method as claimed in claim 1, wherein a number values assignable to the second predetermined constant equals a number of values assignable to the first predetermined constant.
9. The method as claimed in claim 1, wherein an initial value of the second predetermined constant is selectively variable within a range of about 30%.
10. The method as claimed in claim 1, wherein the third heating operation is performed at about 30% the maximum power level.
11. A method of controlling a simmer cooking operation in a microwave oven, comprising:
  - determining an amount of time to correspond to a first time period when a first heating operation is completed based on when a detected level from a sensor reaches a predetermined value;
  - determining a total heating time based on the first time period;

continuously displaying an amount of time remaining within the total heating time;

determining whether a second time period when a second heating operation performed at a maximum power level of the microwave oven has elapsed, wherein the amount of time remaining within the total heating time comprises the second time period;

performing a third heating operation at power level lower than the maximum power level for a third time period, wherein the third time period corresponds to a sum of the first time period and the second time period multiplied by a first predetermined constant; and

determining whether the total heating time has elapsed, wherein a termination of the total heating time substantially coincides with a termination of the third time period.

12. The method as claimed in claim 11, wherein the sensor detects humidity levels in a chamber of the microwave oven and outputs electrical signals having values indicative of the detected levels of humidity.

13. The method as claimed in claim 11, wherein the predetermined value comprises a maximum variation in detected value from the sensor.

14. The method as claimed in claim 11, further comprising determining a length of the second time period using a second predetermined constant, wherein the second predetermined constant is variable in accordance with a type of food to be heated within the microwave oven.

15. The method as claimed in claim 11, further comprising determining a length of the second time period using a second predetermined constant, wherein the second predetermined constant is variable in accordance with a type of cooking operation to be performed within the microwave oven.

16. The method as claimed in claim 15, wherein the type of cooking operation includes a simmer cooking operation.

17. The method as claimed in claim 15, wherein the type of cooking operation includes a thawing operation.

18. The method as claimed in claim 14, wherein a number of values assignable to the first predetermined constant equals a number of values assignable to the second predetermined constant.

19. The method as claimed in claim 11, wherein an initial value of the first predetermined constant is selectively variable within a range of about 30%.

20. The method as claimed in claim 11, wherein the third heating operation is performed at about 30% the maximum power level.